

PARTS & SERVICE NEWS

REF NO.	AA02092
DATE	March 28, 2002

SUBJECT: INTRODUCTION AND INSTALLATION OF REINFORCED SHEET METAL STRUCTURES

PURPOSE: To inform the field of improved sheet metal components and installation procedures.

APPLICATION: Komatsu Wheel Loaders WA700-3L A50001-A50020

FAILURE CODE: 5420HA

DESCRIPTION:

Some wheel loaders, when operating under severe conditions, may develop cracks in external sheet metal components such as the bulkhead and the radiator guard. New, reinforced sheet metal components have been manufactured for installation on the specified wheel loaders. This bulletin contains a list of the necessary parts for the reinforcement (Table 1) and several illustrations and instructions outlining the proper procedure for this rework.

COMPONENT IMPROVEMENTS

The components shown in Figure 1 have been strengthened. Additional parts are required for installation of these components and are listed in Table 1 (page 6 of 26). Figures 2 thru 5 detail specific changes in some of the improved components.

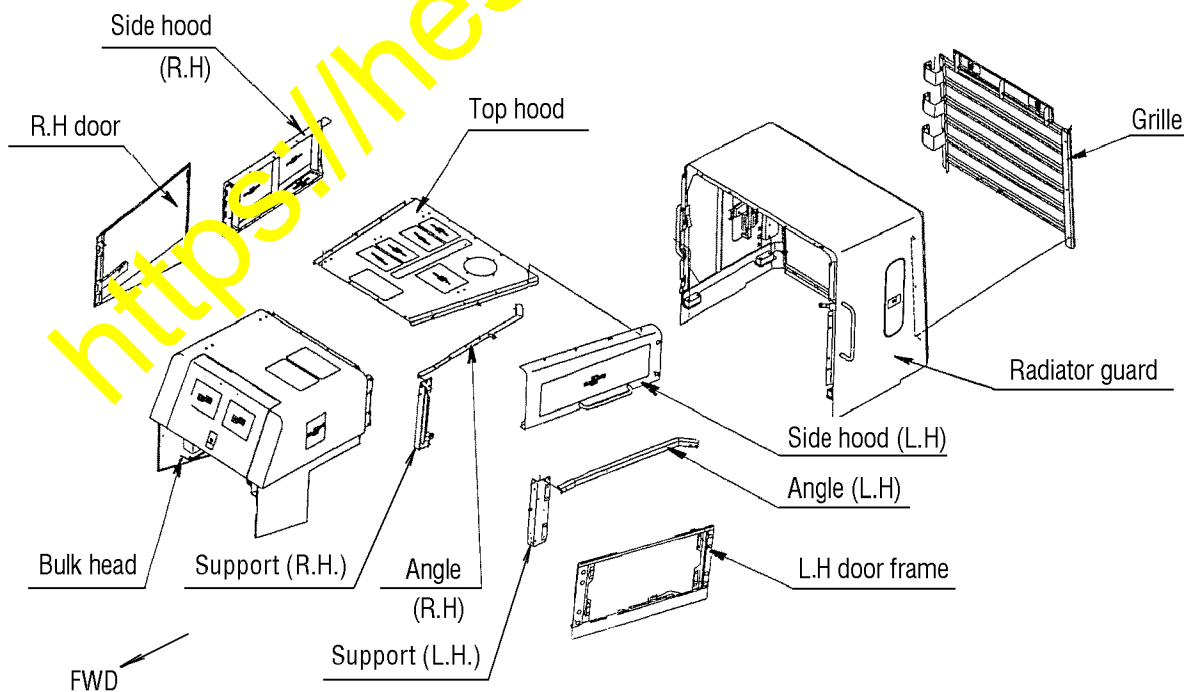


FIGURE 1. STRENGTHENED COMPONENTS

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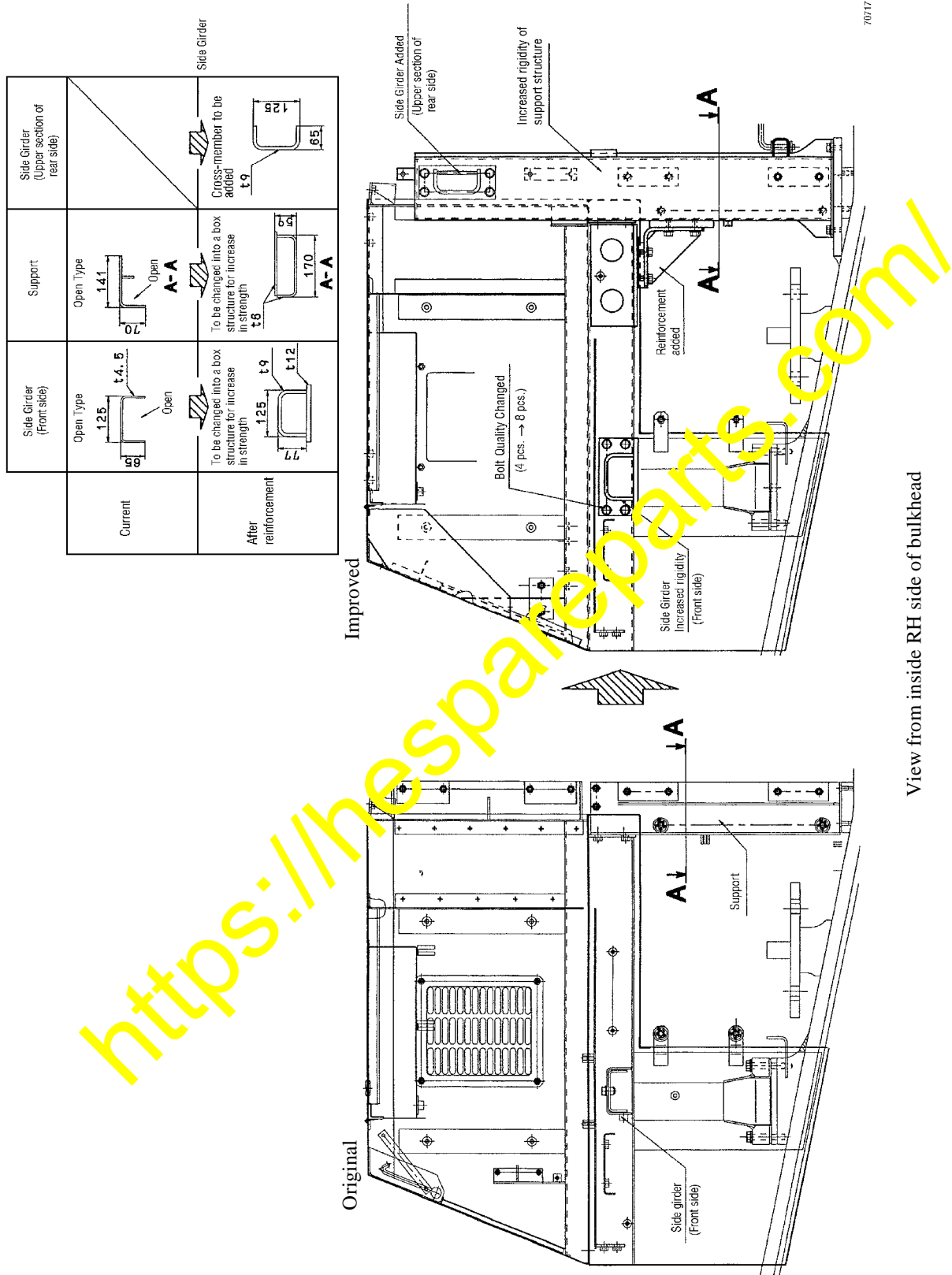
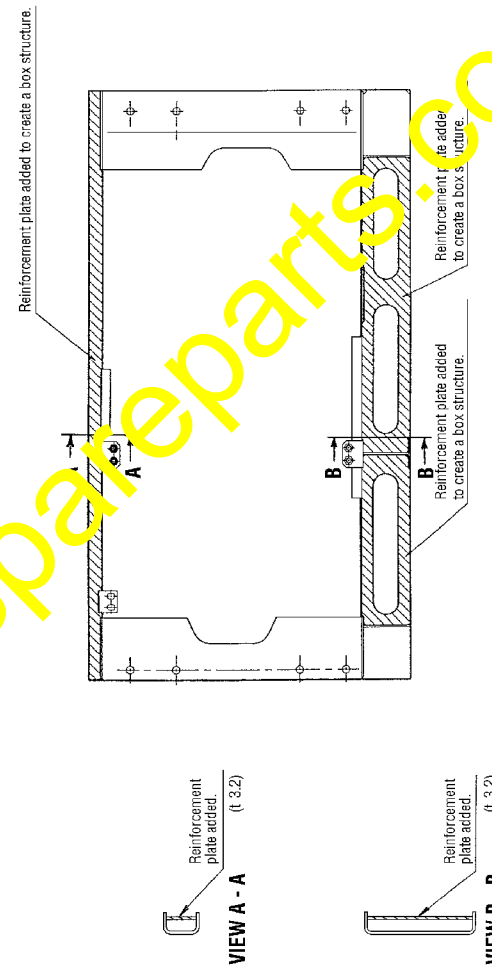
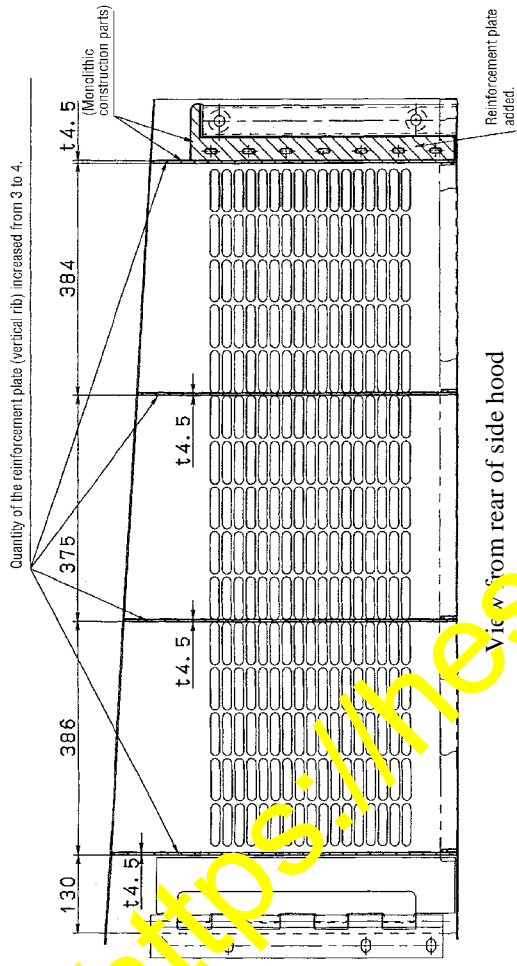


FIGURE 2. BULKHEAD IMPROVEMENTS



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FIGURE 3. SIDE HOOD AND LH DOOR FRAME IMPROVEMENTS

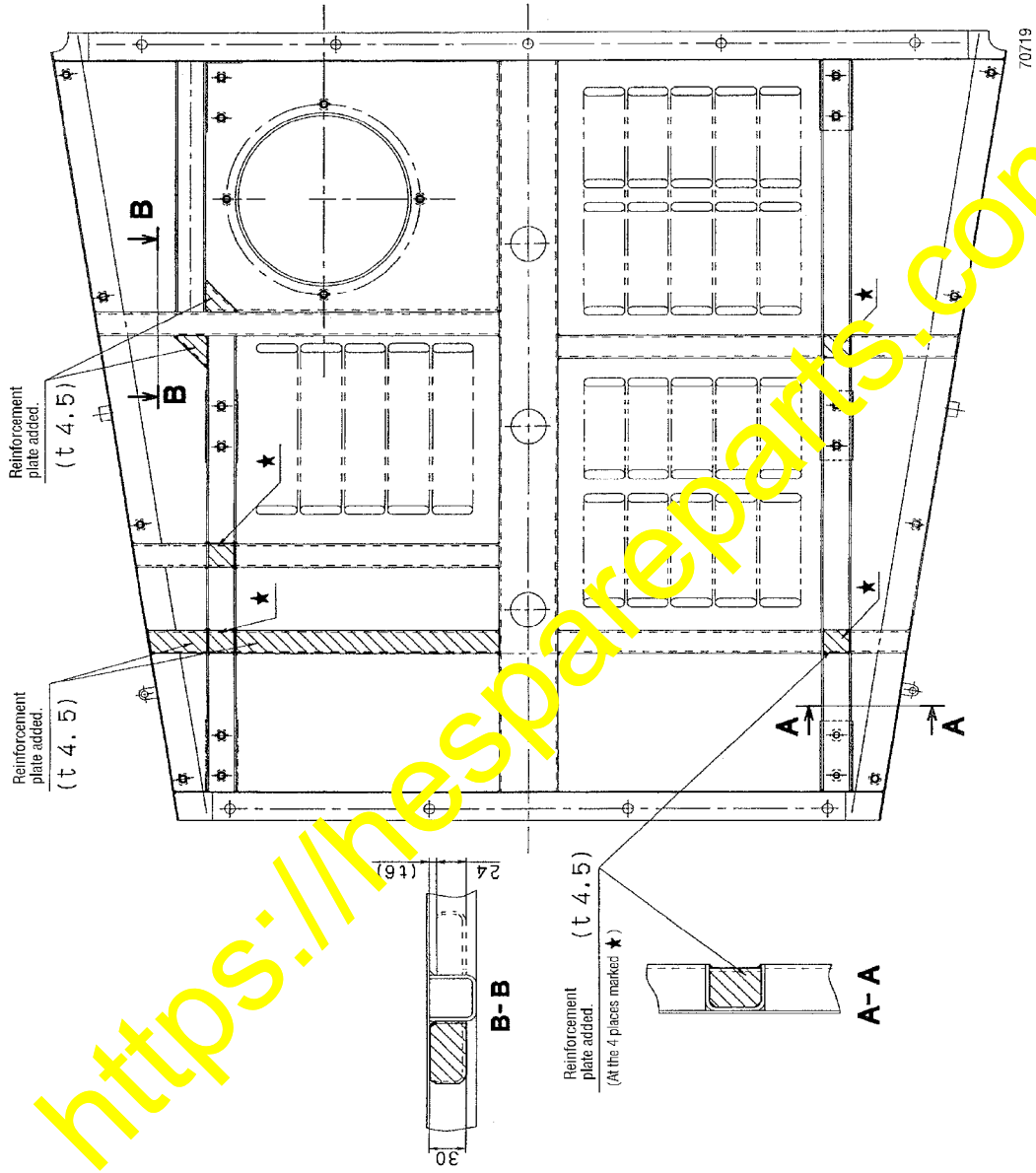


FIGURE 4. TOP HOOD IMPROVEMENTS

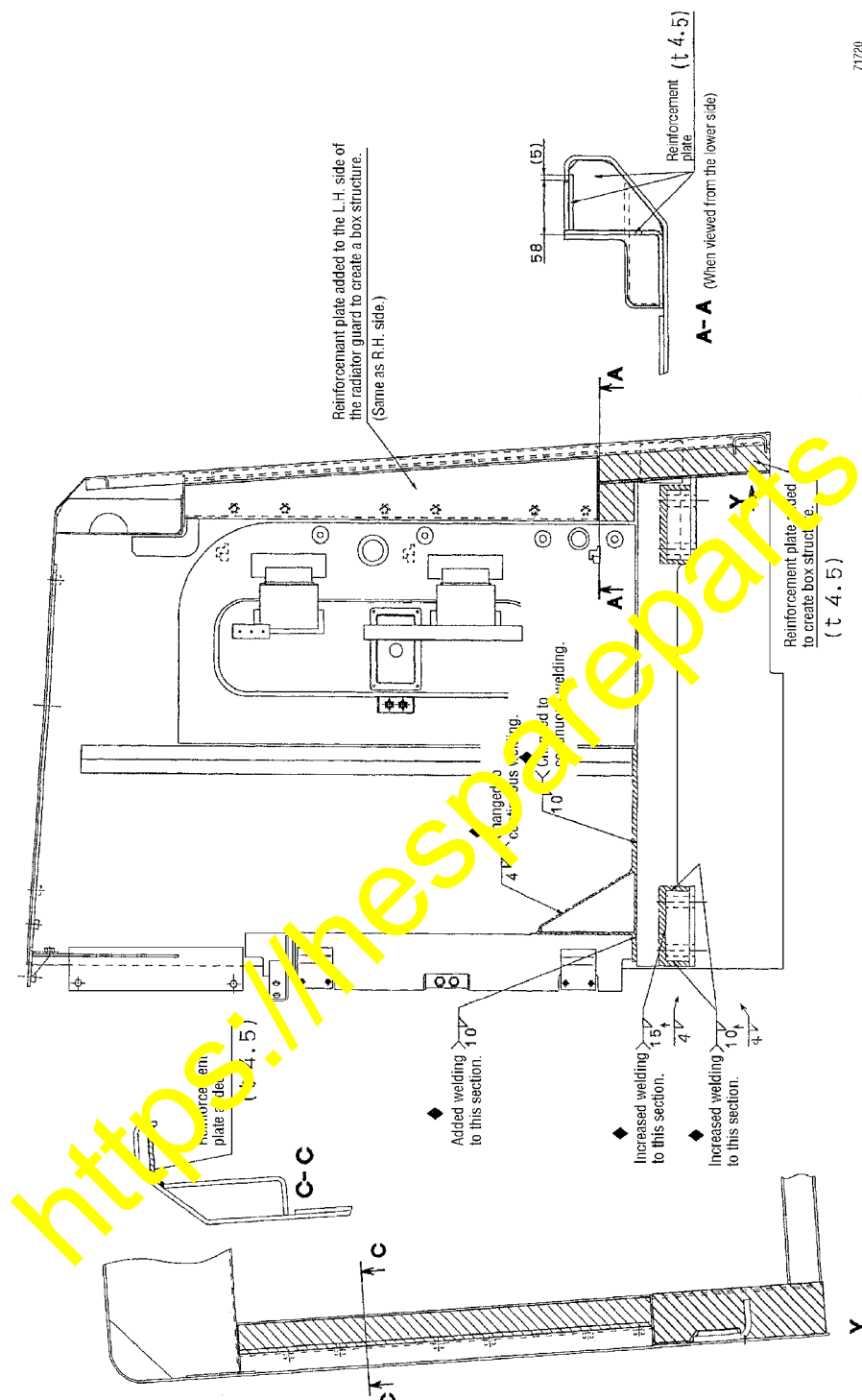


FIGURE 5. RADIATOR GUARD IMPROVEMENTS

TABLE 1. PARTS LIST FOR REINFORCEMENT REWORK

Part Number	Description	Quantity
428-54-21115	Bulkhead	1
428-54-21711	Support, LH	1
428-54-21721	Support, RH	1
428-54-21741	Crossbeam, Rear	1
428-54-21750	Bracket	2
428-54-21780	Shim	12
428-54-21790	Crossbeam, Front	1
428-54-21181	Angle, LH	1
428-54-21271	Door frame, LH	1
428-54-21350	Door, LH	1
428-T86-1322	Door, LH	1
427-T86-2571	Seal, Door	1
23S-54-27470	Seal, Door	1
22T-54-24280	Seal, Door	1
22T-54-19131	Seal, Door	1
428-54-21192	Angle, RH	1
428-54-11156	Door, RH	1
428-54-21770	Bar	1
428-54-21391	Guard, Radiator	1
426-54-21891	Cover	1
425-54-14460	Cushion	4
428-54-21262	Grill	1
428-54-21122	Hood, Top	1
428-54-21114	Side Hood, LH	1
428-54-21144	Side Hood, RH	1
09657-03001	Decal, Safety (Fan)	1
09690-C0560	Decal, Komatsu	1
09812-03000	Decal, Safety	2
417-93-21220	Decal, Avance Loader	2
421-93-21311	Decal*	1
427-93-21230	Decal, Air Cleaner	1
428-93-11410	Decal, WA700	2
428-T86-1290	Tread, Anti-slip	1
428-T86-1310	Tread, Anti-slip	4

TABLE 1. PARTS LIST FOR REINFORCEMENT REWORK

Part Number	Description	Quantity
428-46-22L60	Plate, RH	1
428-46-22L70	Plate, LH	1
428-46-22X30	Plate, RH	1
428-46-22X40	Plate, LH	1
01010-81225	Bolt	12
01010-81230	Bolt	50
01010-81235	Bolt	8
01010-81240	Bolt	8
01010-81265	Bolt	8
01010-81690	Bolt	8
01010-82095	Bolt	8
01643-31645	Washer	8
01643-31232	Washer	77
01643-32060	Washer	8
124-54-26540	Washer	9
362-56-41740	Rivet	16
427-09-11210	Shim	24
1400901H1	Paint, Permanent Grey**	1

* Use the "Hot Water Hazard Decal"

** Order from P.D.C.

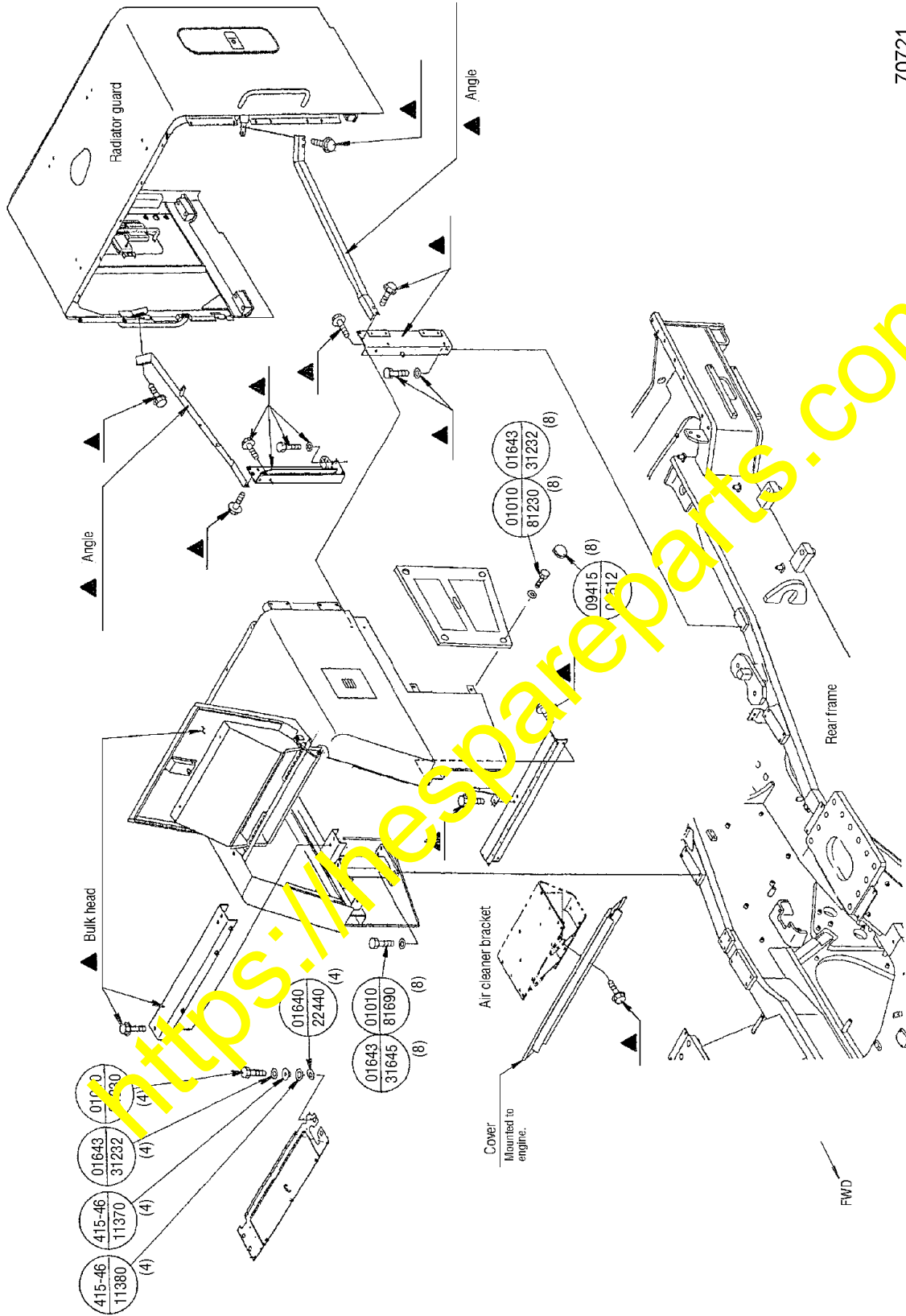
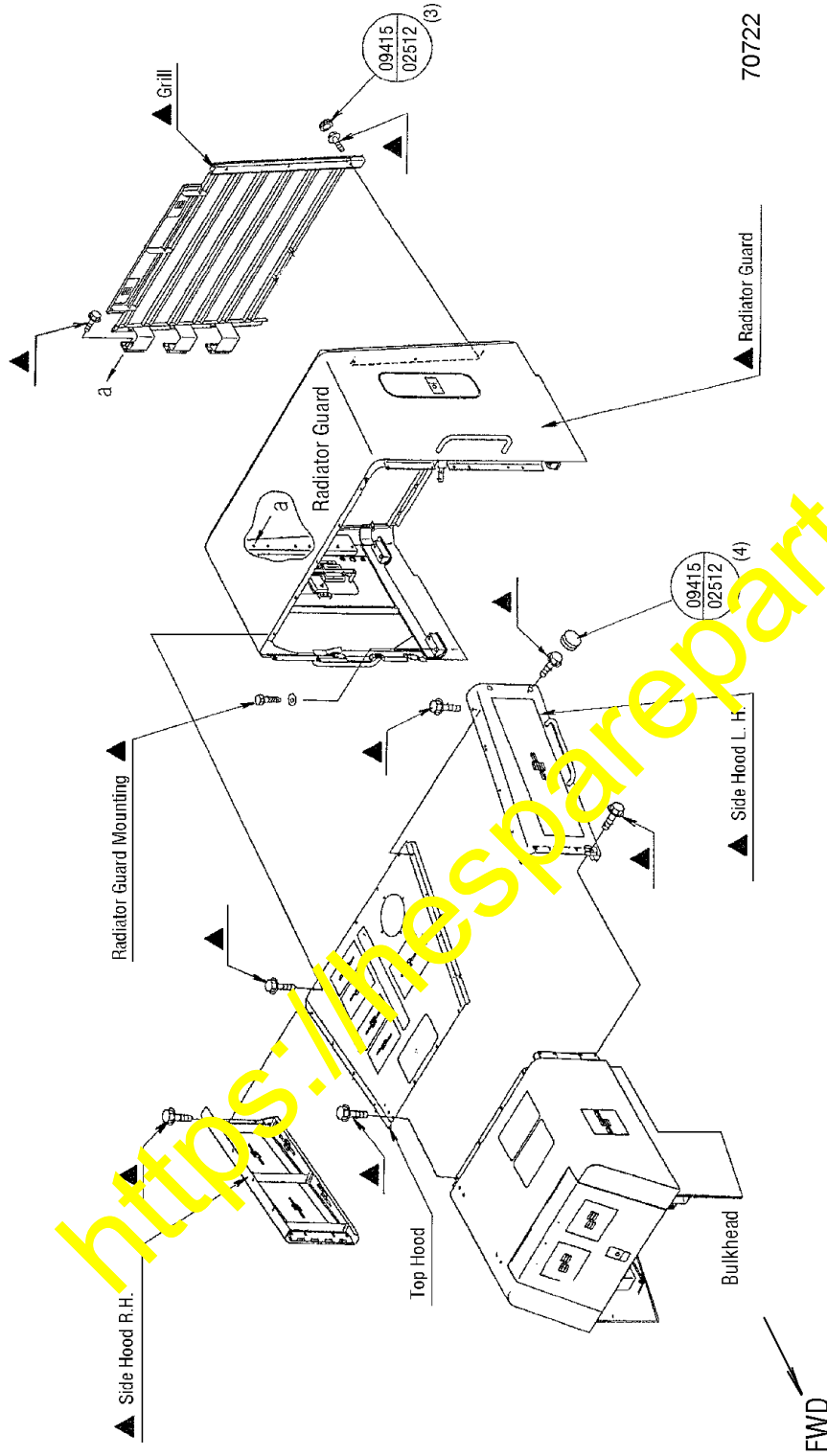


FIGURE 6. REMOVAL OF PARTS

Parts marked ▲ are to be replaced with new components listed in Table 1.

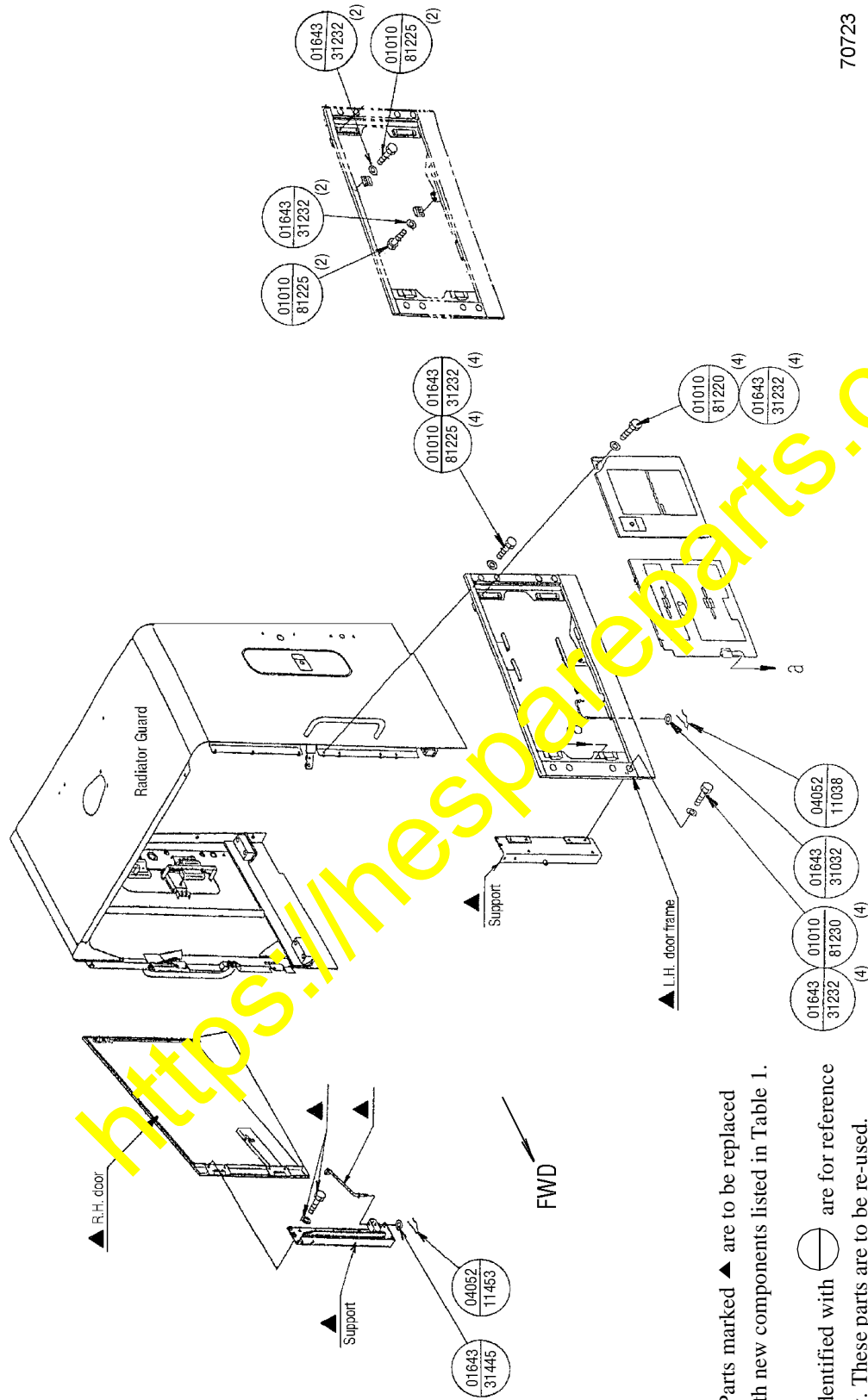
Parts identified with ⊖ are for reference only. These parts are to be re-used.



Parts marked ▲ are to be replaced with new components listed in Table 1.

Parts identified with ⊖ are for reference only. These parts are to be re-used.

FIGURE 7. REMOVAL OF PARTS



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FIGURE 8. REMOVAL OF PARTS

Parts marked ▲ are to be replaced with new components listed in Table 1.

Parts identified with ⊖ are for reference only. These parts are to be re-used.

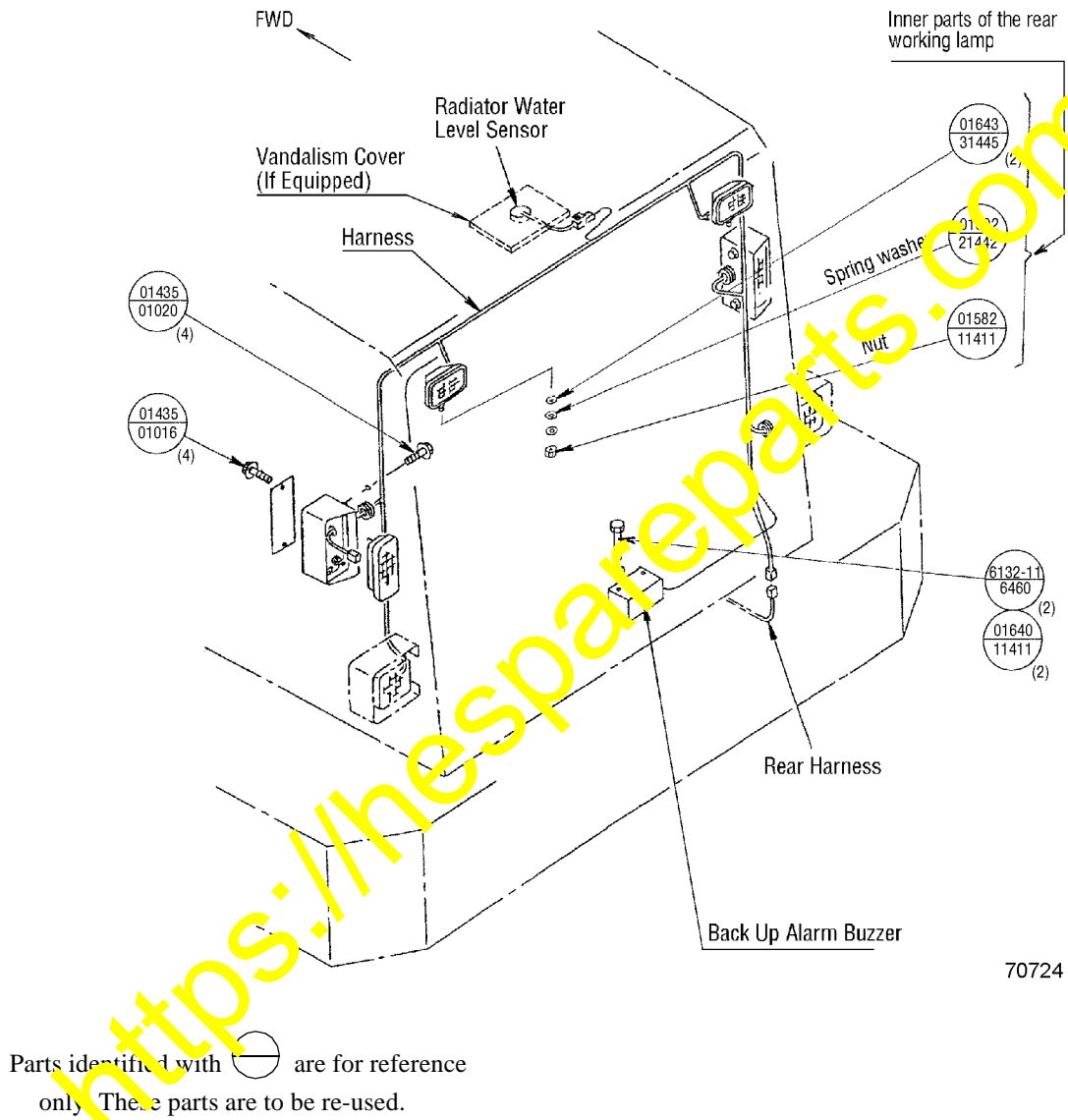
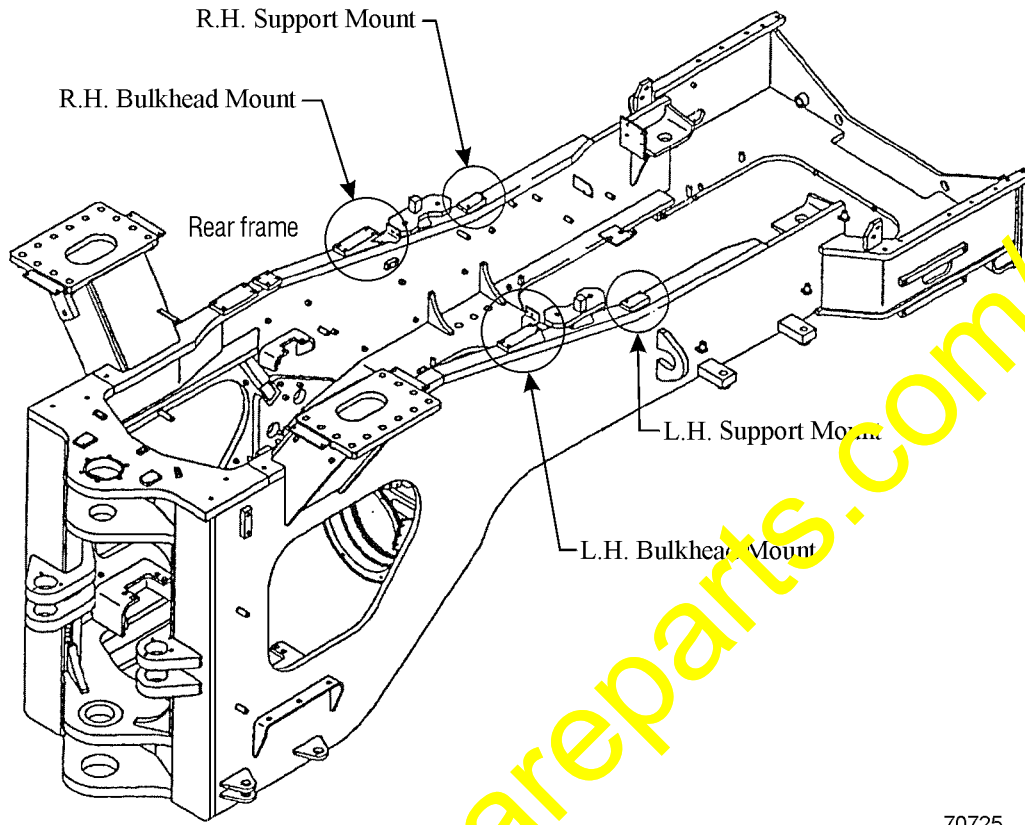


FIGURE 9. REMOVAL OF PARTS



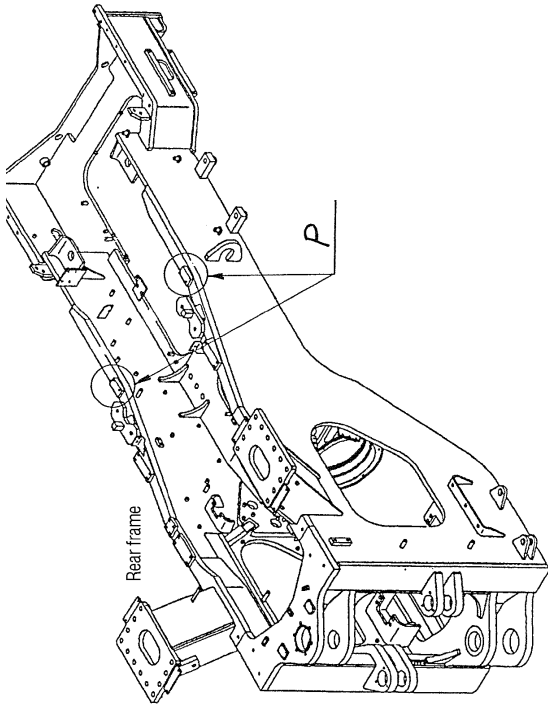
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FIGURE 10 REPLACING MOUNTS

A trial fit must be performed to locate the mounting plate locations. This involves bolting the mounting plates, 428-46-22X30 and 428-46-22X40, to the front of the bulkhead and plates, 428-46-22L60 and 428-46-22L70, to the rear bulkhead supports. The bulkhead assembly should then be installed in place on the machine. Install the hood and the side doors. Adjustments should be made to attain the necessary clearances and uniform panel gaps. (See Figures 13 & 14, TRIAL FIT OF PARTS.) The plates should then be tack welded to the frame in this location. The bulkhead, rear supports, hood, and side doors must then be removed, and the welding of the plates completed per Figures 11 & 12.

Use standard torque specifications listed in the shop manual during installation of the new components.

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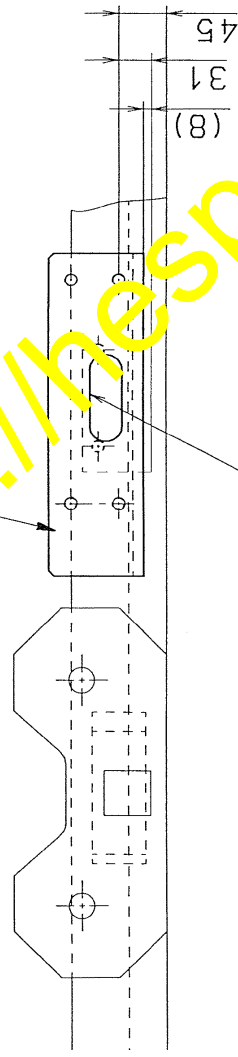


Mounting plates must be welded on top of existing mounting plates. Inspect existing plates and weld repair as necessary. The welding surfaces must be flat. Locate mounting plates as described on page 12 of 26, trial fit.

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Weld to the upper surface of the current support.

R.H. L.H.
22160/22170
22160/22170



Both L.H. and R.H. sides
10

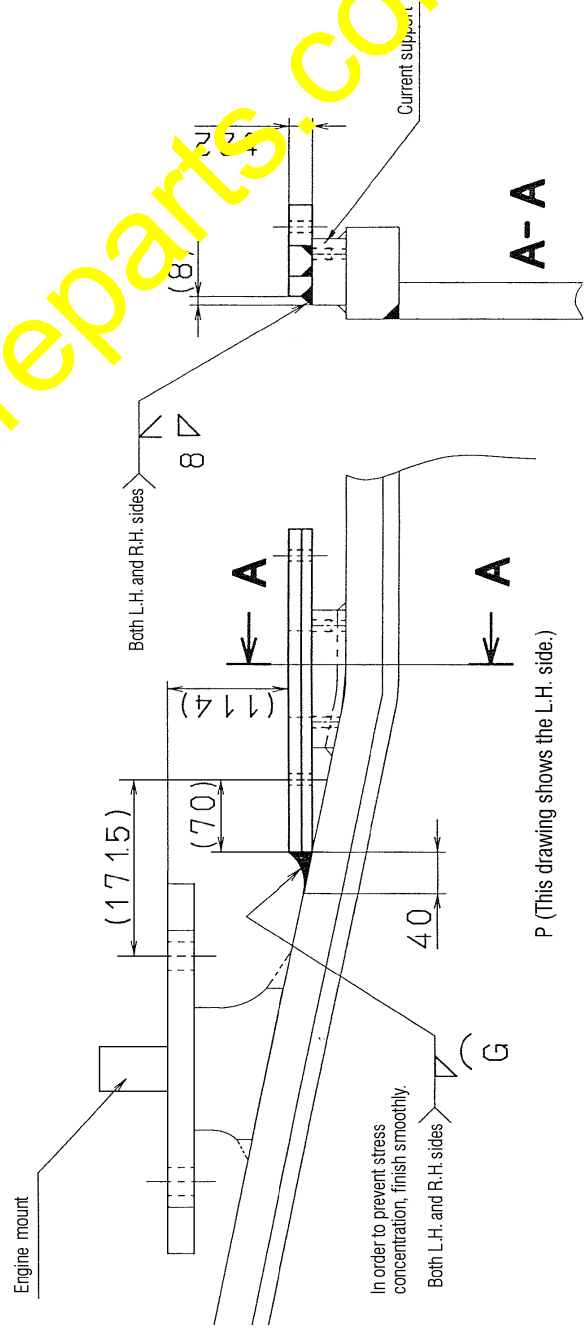
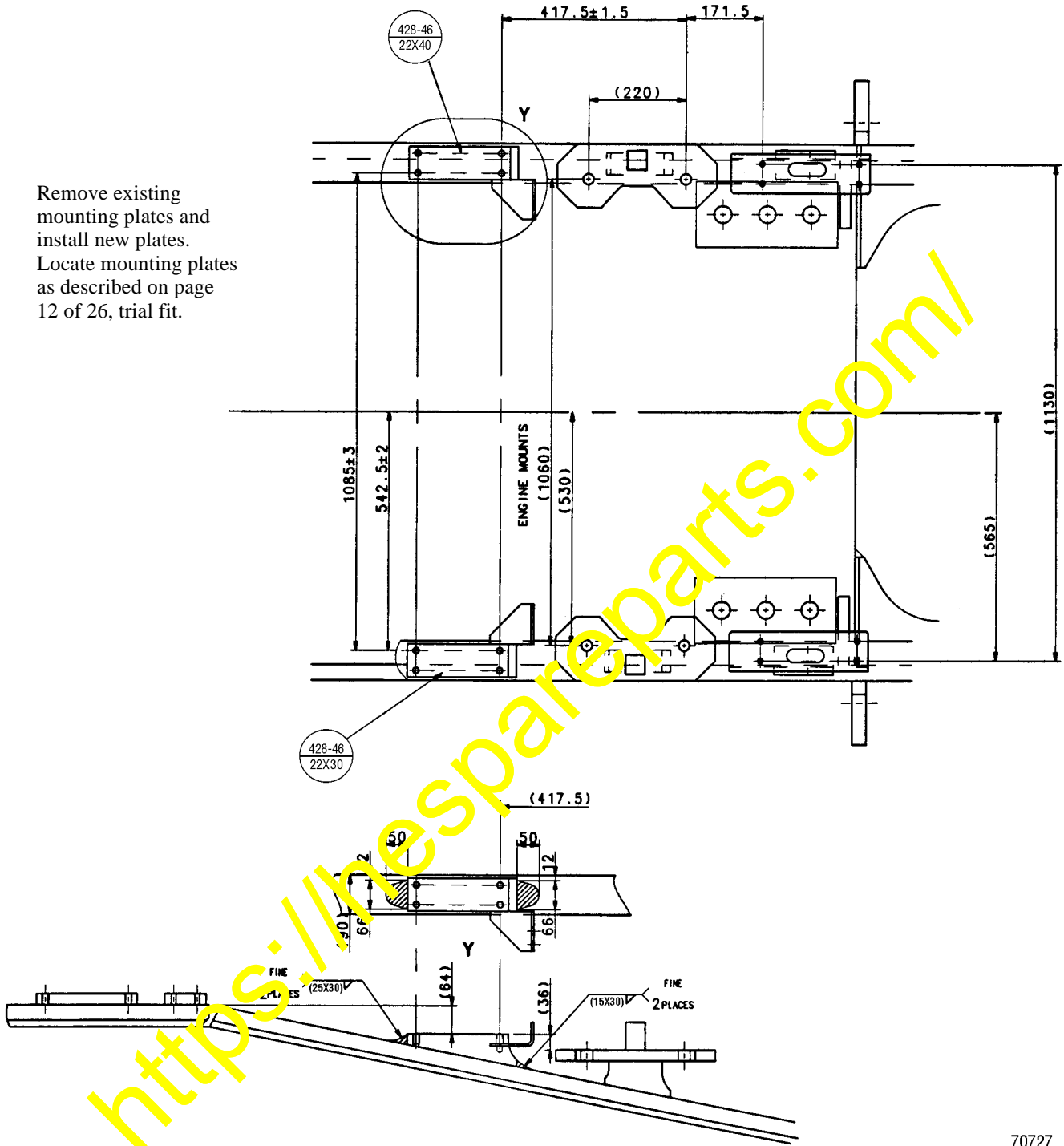


FIGURE 11. REPLACING MOUNTING PLATES

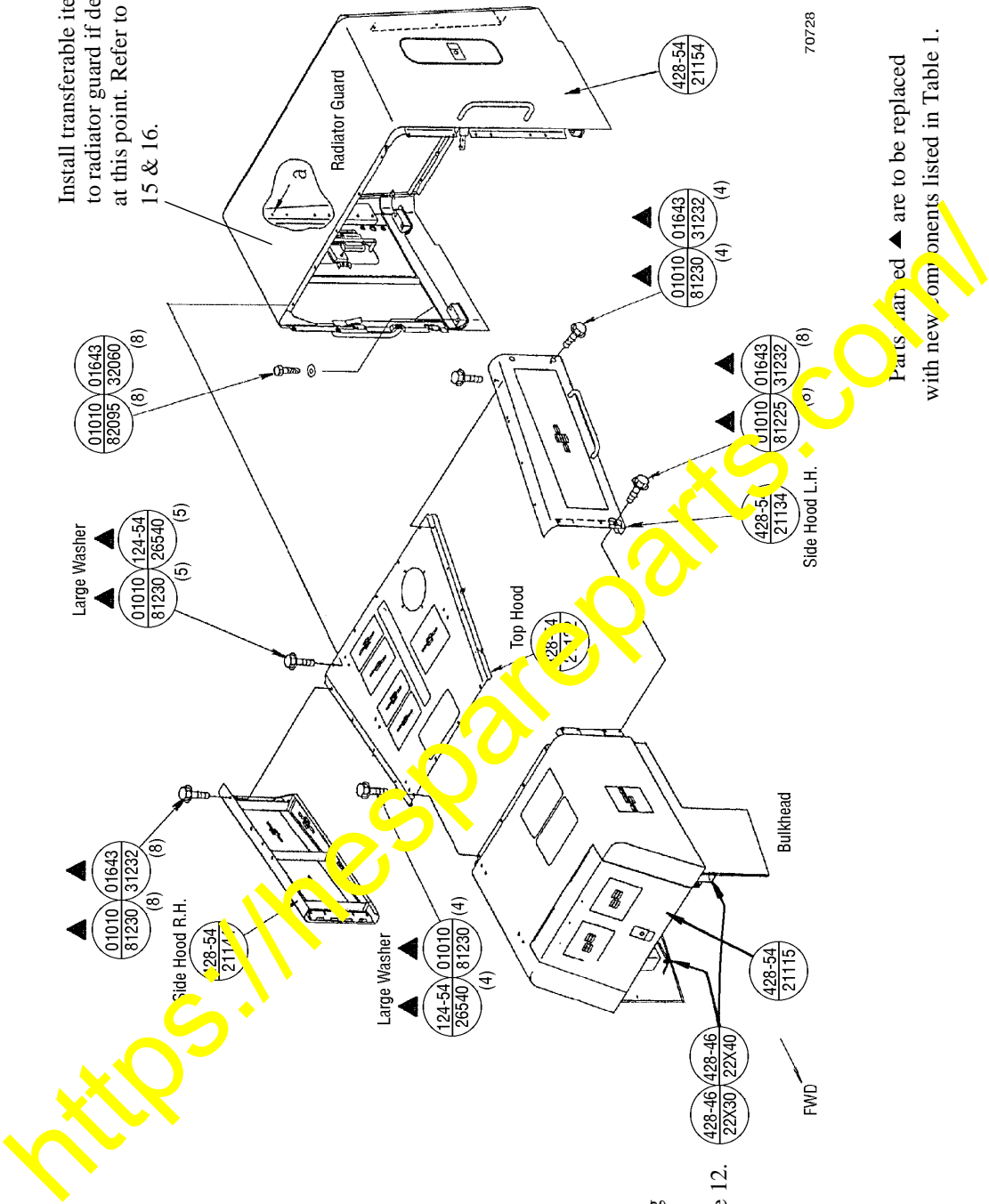
Remove existing mounting plates and install new plates. Locate mounting plates as described on page 12 of 26, trial fit.



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FIGURE 12. REPLACING MOUNTING PLATES

Install transferable items to radiator guard if desired at this point. Refer to Figures 15 & 16.

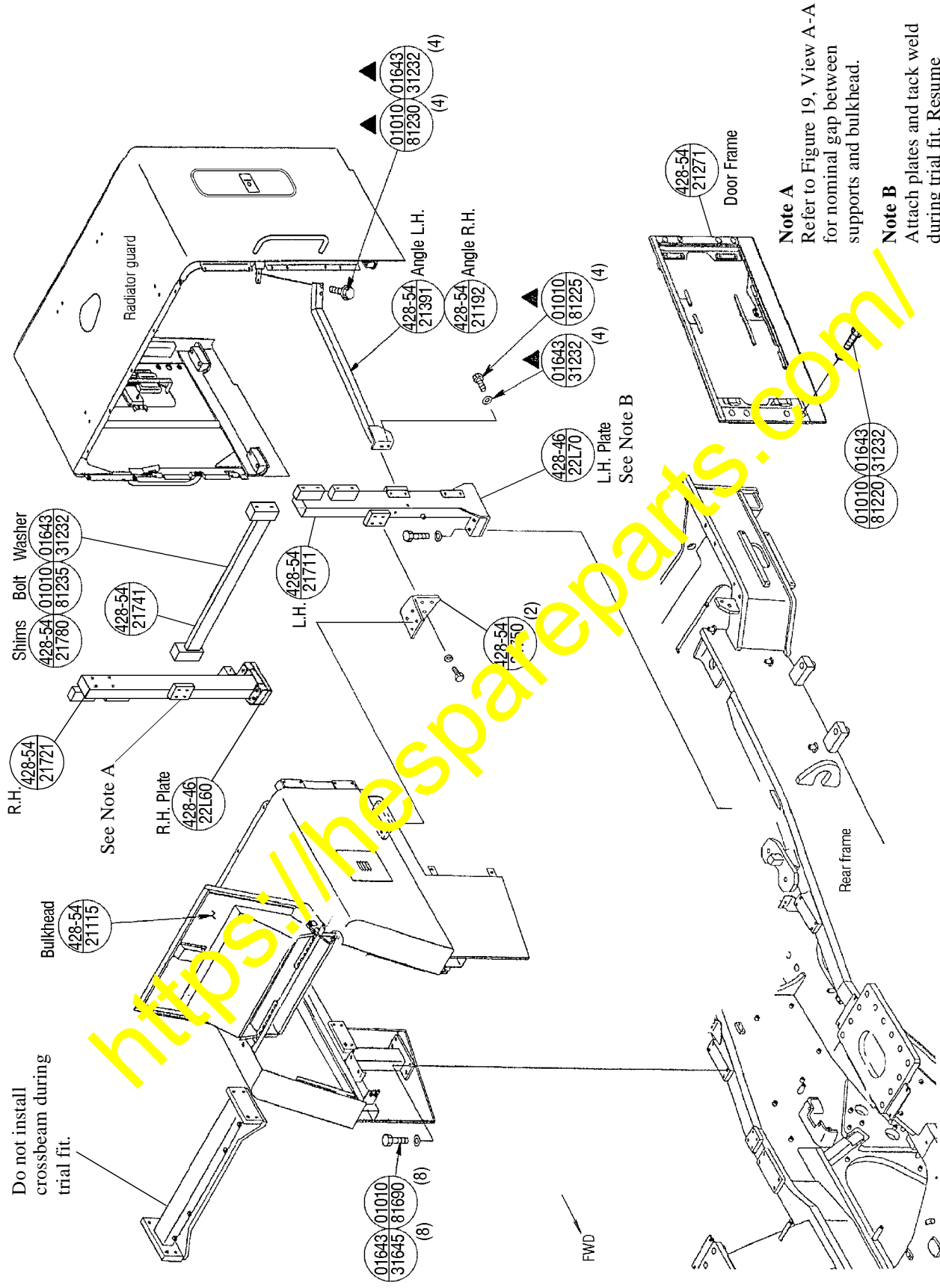


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Attach plates and tack weld during trial fit. Resume welding after removal of parts. Refer to welding specifications in Figure 12.

Parts marked ▲ are to be replaced with new components listed in Table 1.

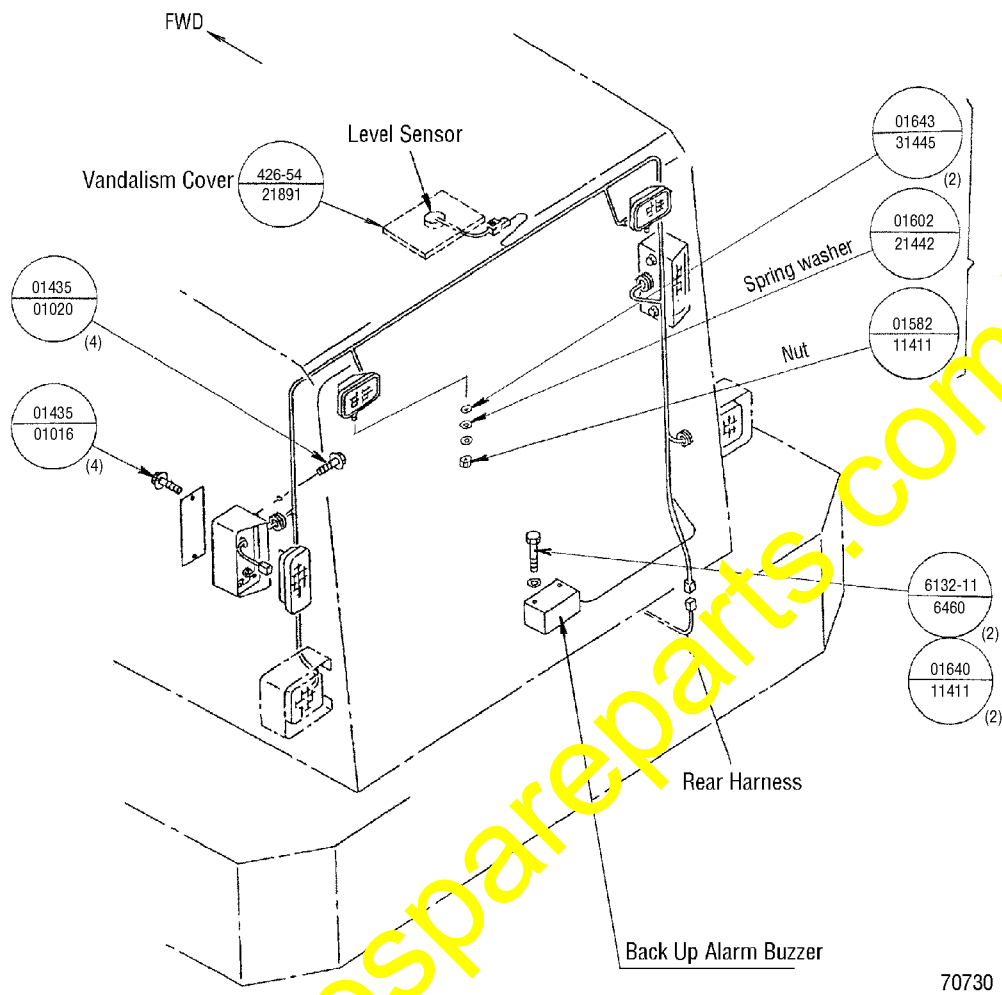
FIGURE 13. TRIAL FIT OF PARTS



Note A
Refer to Figure 19, View A-A for nominal gap between supports and bulkhead.

Note B
Attach plates and tack weld during trial fit. Resume welding after removal of the parts. Refer to Figure 11 for welding specifications.

FIGURE 14. TRIAL FIT OF PARTS



Transfer components from previous radiator guard to new radiator guard.

FIGURE 15. INSTALLATION OF PARTS

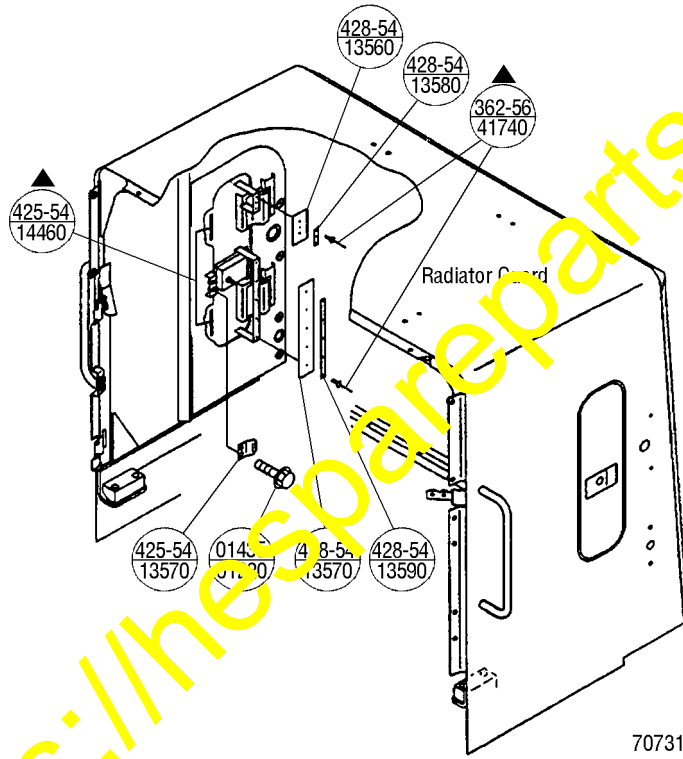
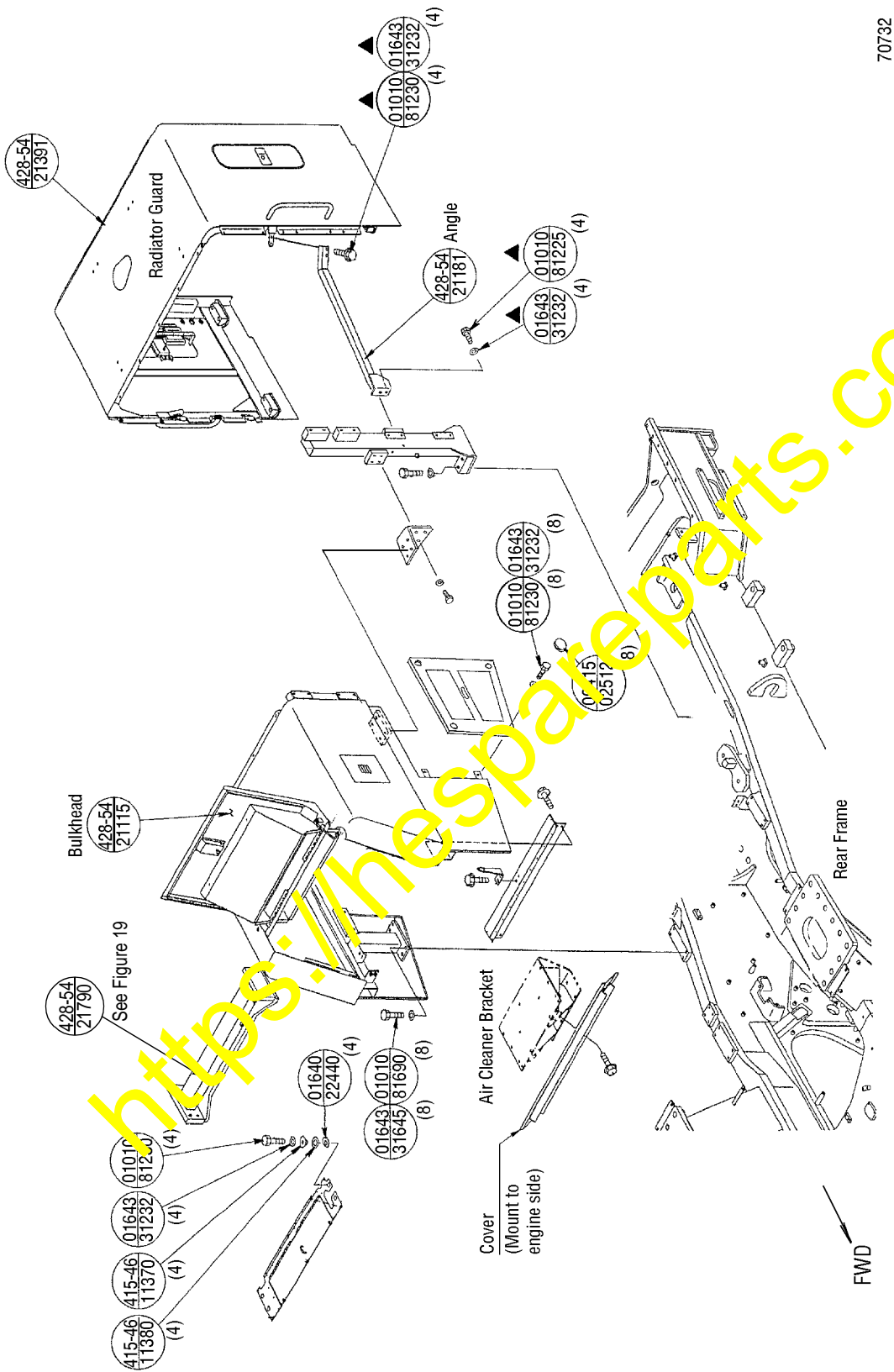


FIGURE 16. INSTALLATION OF PARTS



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FIGURE 17. INSTALLATION OF PARTS

Shims can be installed at LH & RH cover structures and at bulkhead mounts for improvement of cover alignment.

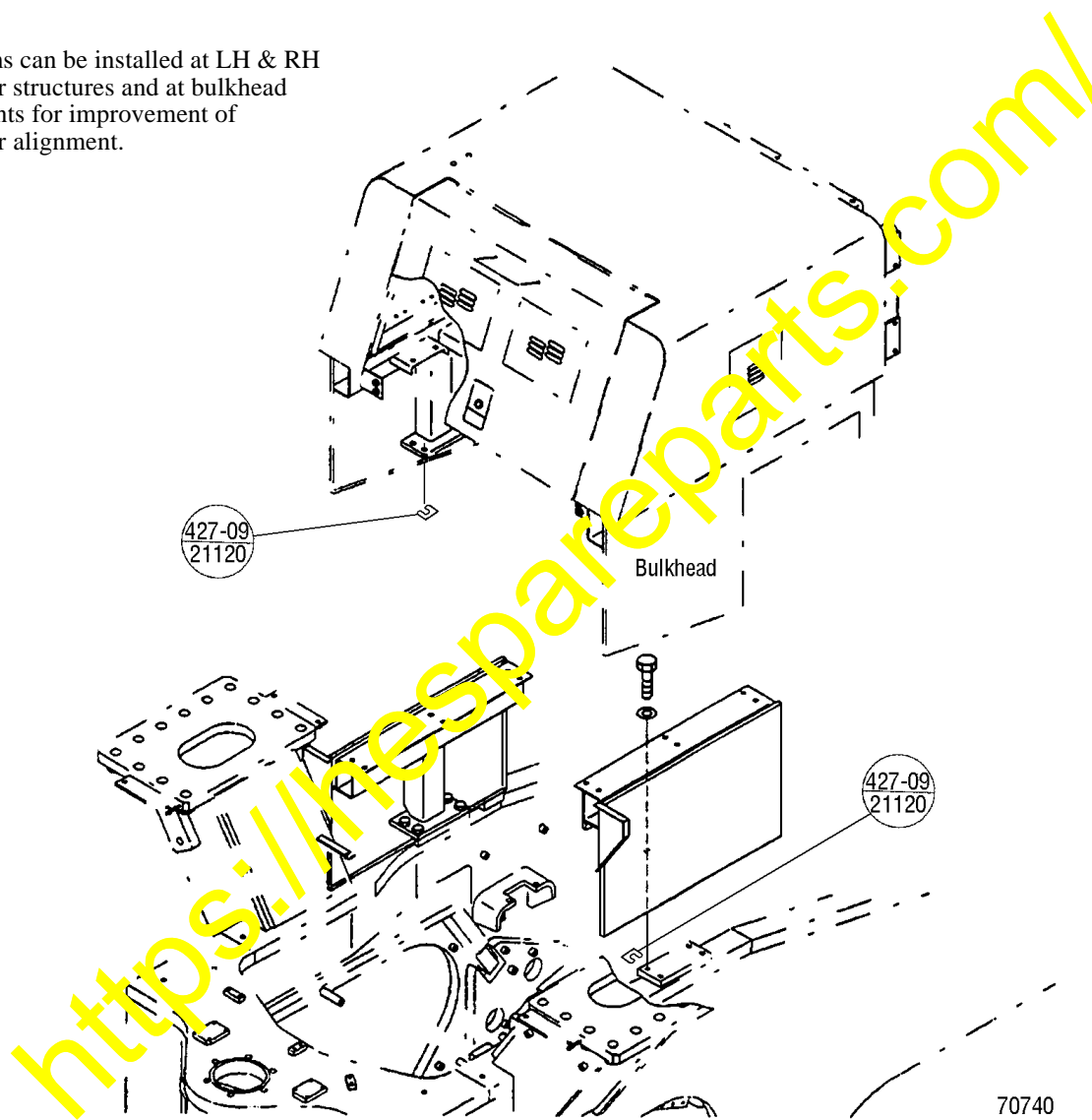


FIGURE 18. INSTALLING SHIMS

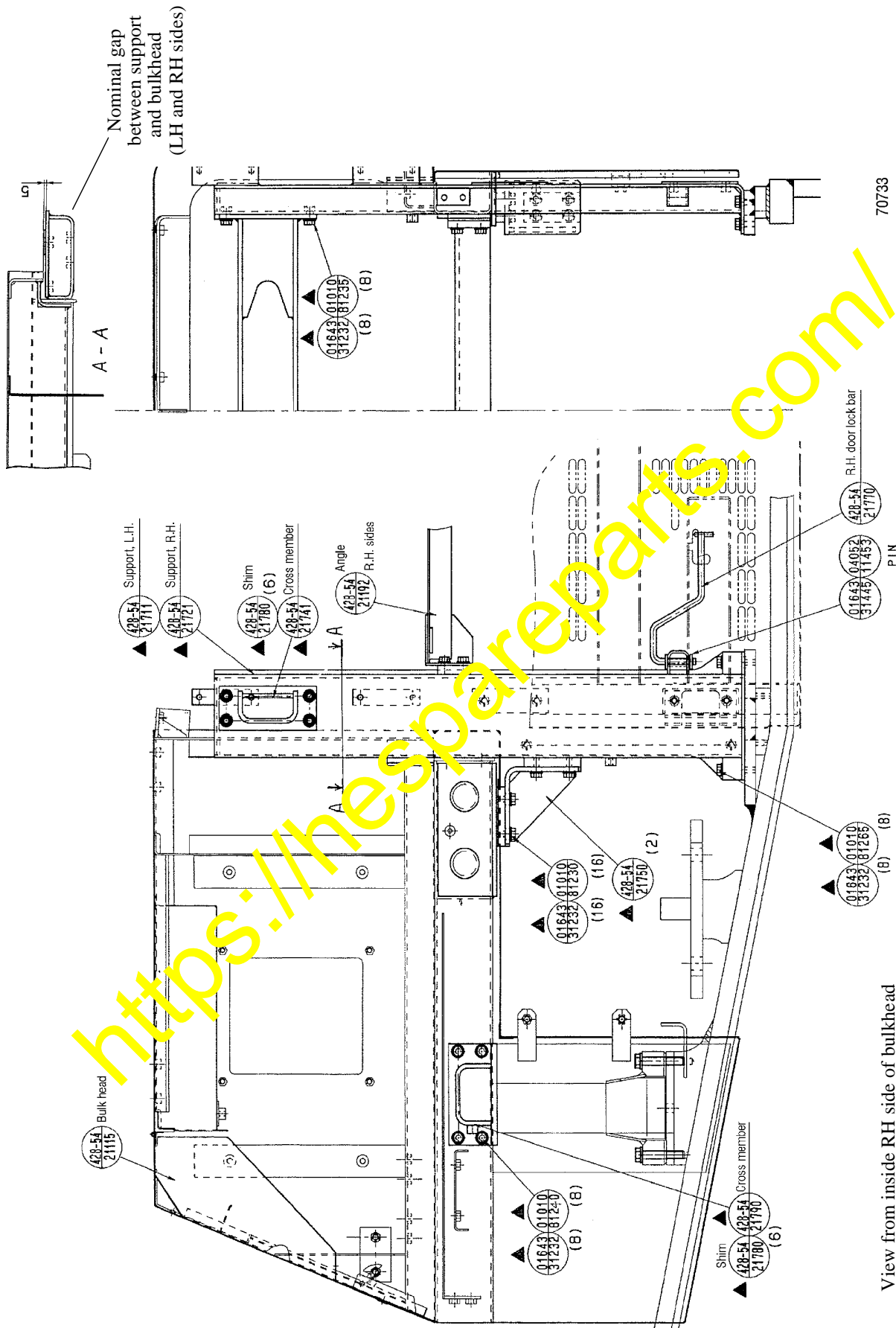
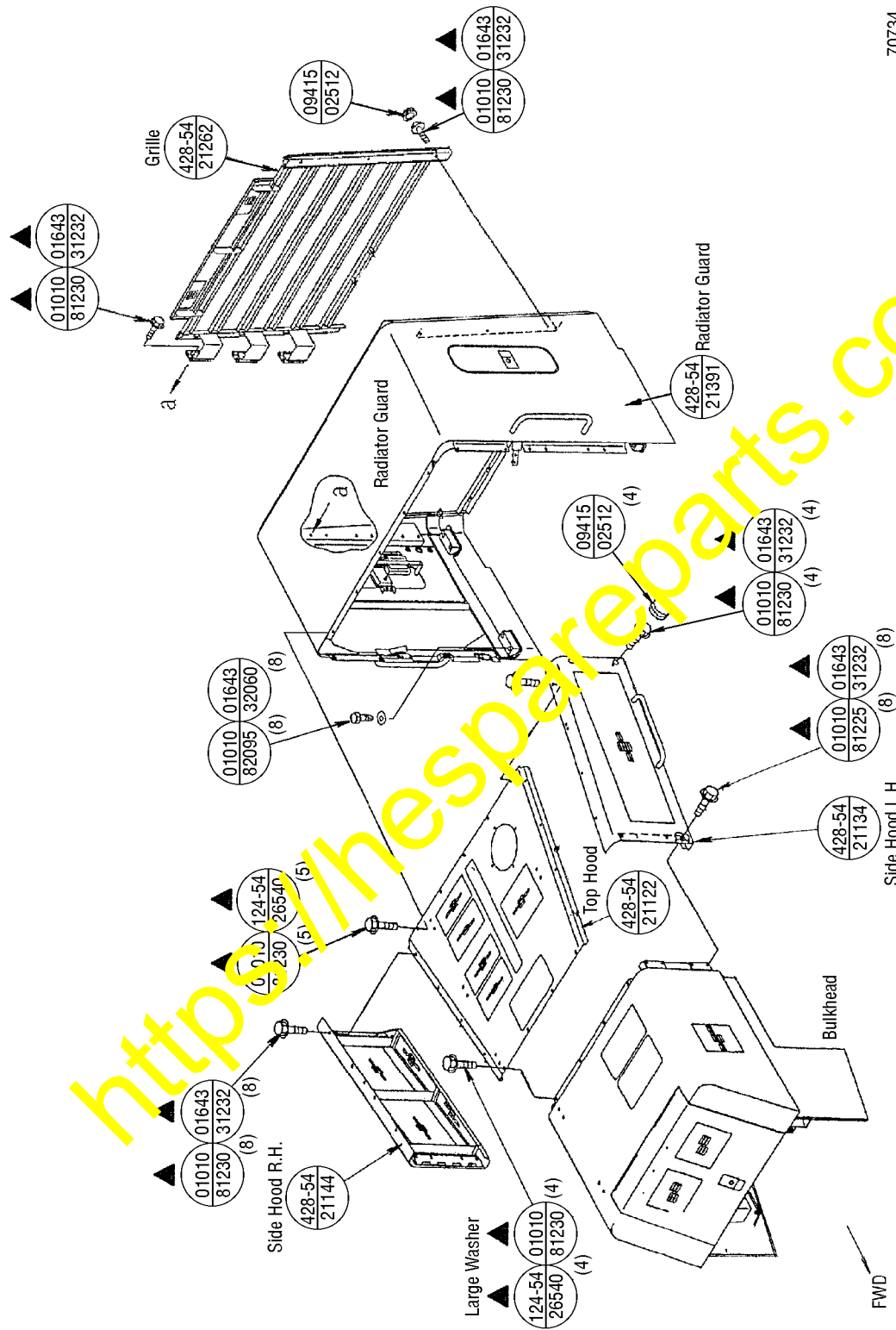


FIGURE 19. INSTALLATION OF PARTS



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FIGURE 20. INSTALLATION OF PARTS

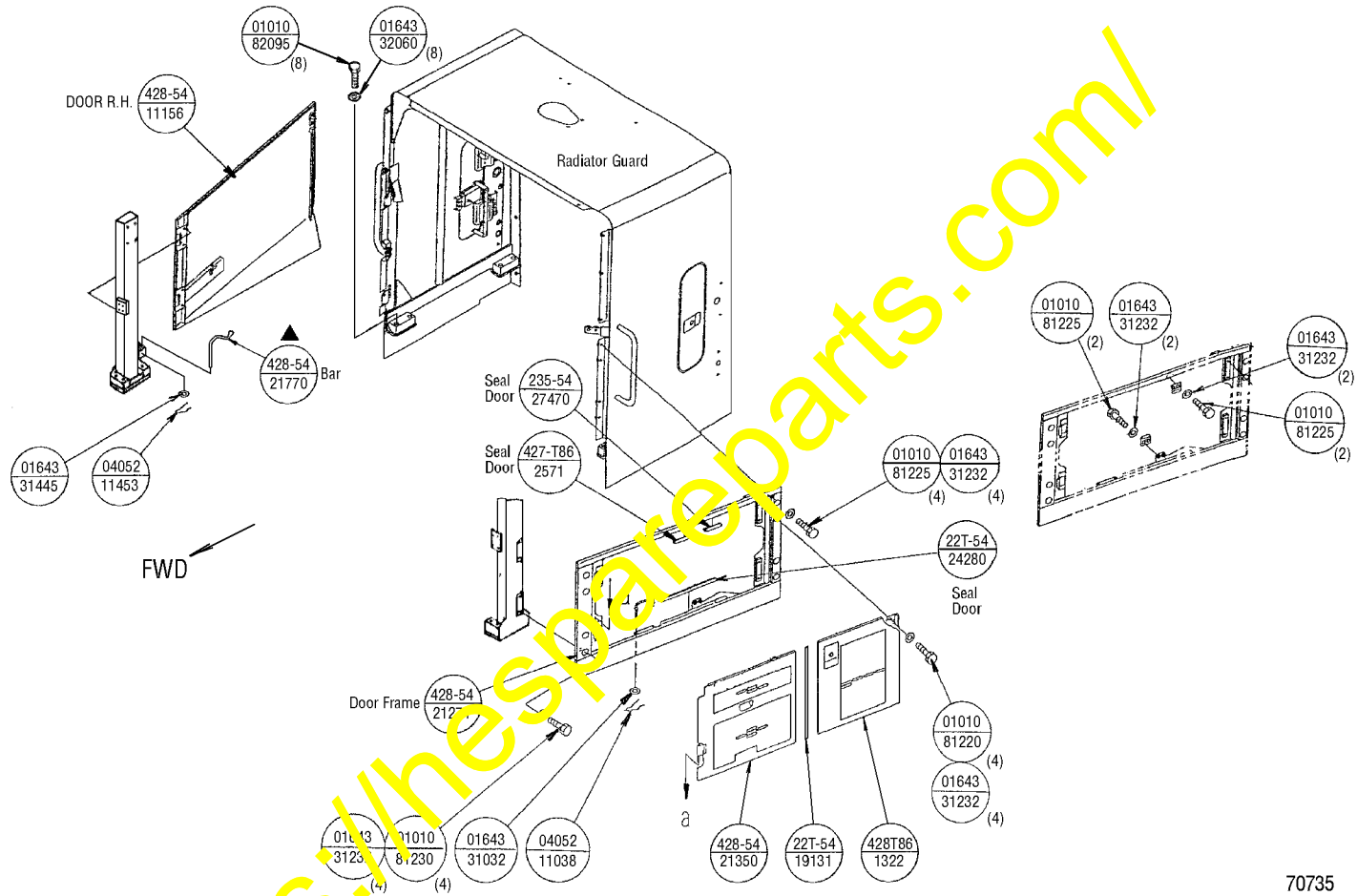


FIGURE 21 INSTALLATION OF PARTS

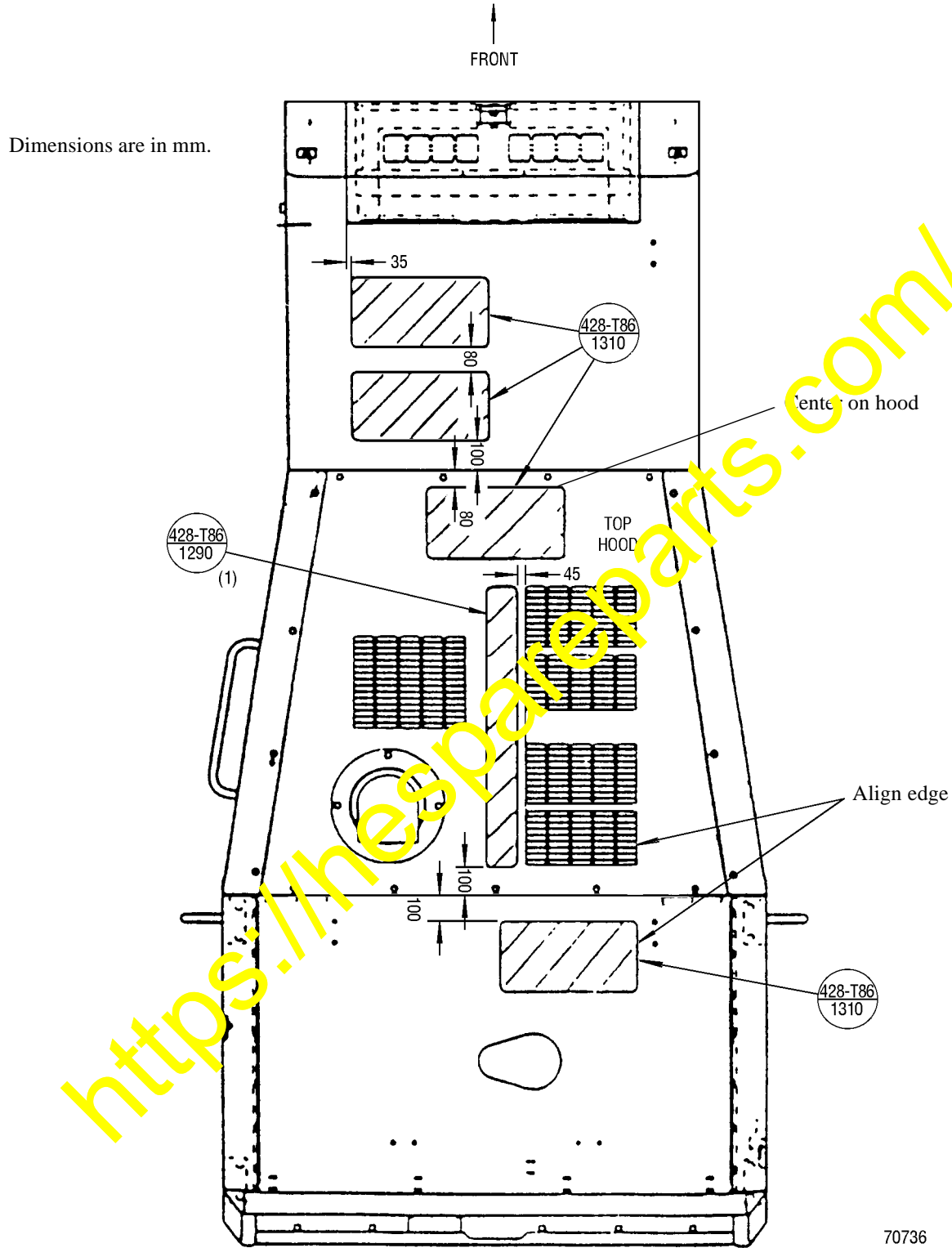


FIGURE 22. INSTALLATION OF ANTI-SLIP PLATES

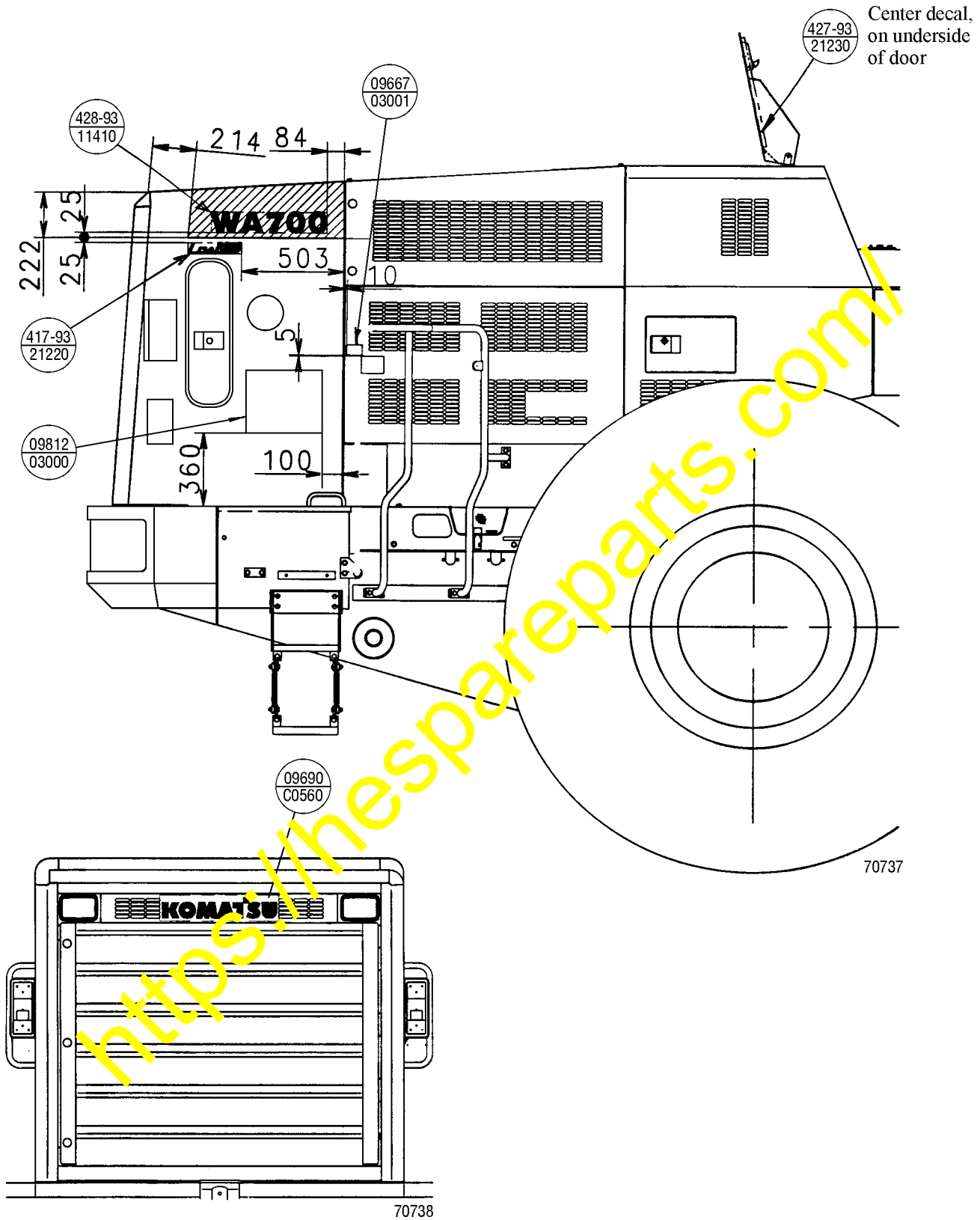


FIGURE 23. INSTALLATION OF DECALS

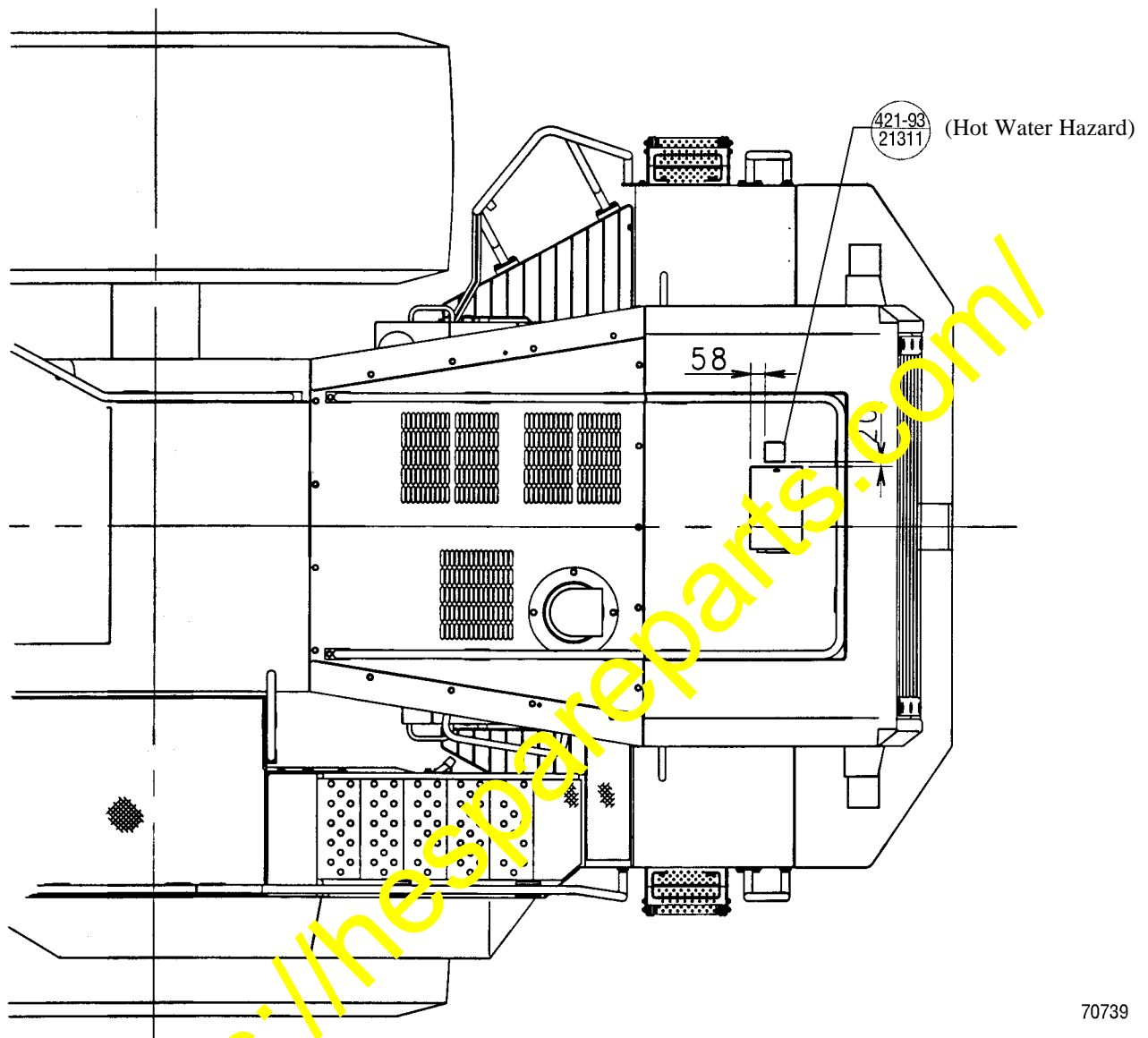


FIGURE 24. INSTALLATION OF DECALS